

## BUILDING A DATA-DRIVEN NEWSROOM

### HOW DALLAS MORNING NEWS EMBRACES DATA TO MAKE CRITICAL DECISIONS AND GROW REVENUE

#### *The Situation*

In 2017, the Dallas Morning News (DMN) was well underway with its third iteration of a paywall. The first launch of the paywall in 2011 locked certain content behind a hard paywall. This was based on a subjective decision by the newsroom and mirrored the content found in the print newspaper. The hard paywall was abandoned since it prevented growth in a key part of the engagement funnel with users unable to sample valuable content and understanding why they should pay.

The second iteration launched two years later and used the “dual site” approach with one premium site and a separate free site. Within twelve months this too was abandoned, mainly because the same exact articles were published on both sites, confusing the audience why they should pay for free content.

Finally, after a two-year break, in 2016, DMN joined the hundreds of newspapers with a metered paywall. Over the next few years, DMN continued to test and evolve the paywall configuration, including the meter setting, vendors, price points, product offerings, and other user experience improvements. While the mechanics of the paywall garnered a lot of discussion, there was a fundamental evolution happening within the organization.

As newsrooms around the world began to transform from a traditional workflow centered around the print product, **DMN set a long-term vision to modernize and become a truly data-driven organization**. The change coincided with the relocation of the newspaper to a part of Dallas also undergoing a rebirth (the new offices are located in the old public library, adjoining another Dallas landmark, The Statler Hotel).

With a visible commitment to modernize the newsroom, leaders within the organization aimed to galvanize reporters, editors, and even freelancers, to reinvent how the newsroom operated. If consumer revenue is king, writers and decision-makers needed to **understand what content converts users to paid subscribers**. Furthermore, there must be a strategy in the newsroom to nurture users along the engagement funnel and focus on the content that kept users engaged.

In 2017, Mark Francescutti was a sports vertical editor. Mark had a vision and helped lead the strategy to transform the Dallas Morning News into a modern newsroom.

*“To save democracy, we need to keep local journalism. If we want to save local journalism, we need to provide content and a service that keeps the newsroom working and profitable. Practically speaking, how many other businesses would willingly ignore their own sales figures when making decisions about their core product?”*

— Mark Francescutti

Director, Digital Marketing Operations and Engagement  
The Dallas Morning News

Journalists need to serve funnel 



What do you do to bring engagement at all levels?

*The Approach*

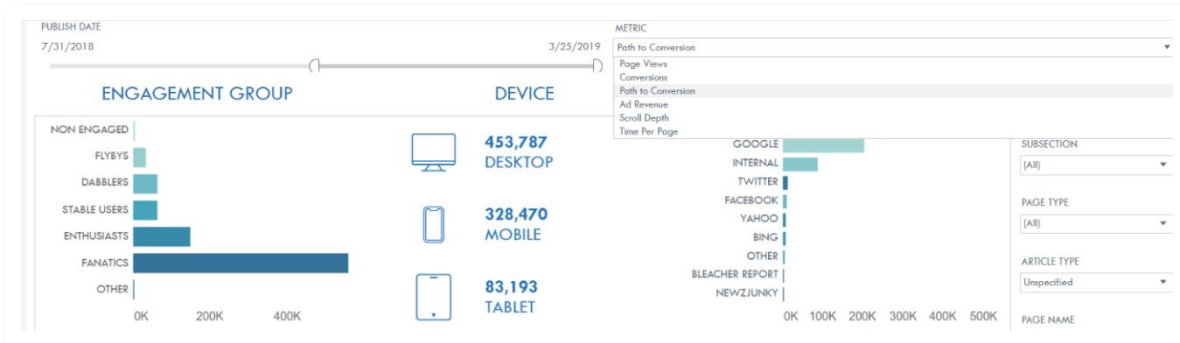
With the goals clearly outlined, Mather Economics began an ongoing consultative service with the Dallas Morning News to provide data and analytics to help the newsroom.

First, DMN installed Listener™, a patent-pending data platform built by Mather Economics from the ground-up, to solve the critical challenges facing many media companies. The data introduced several innovations not found in other analytics tools:

- Holistic integration with paywall system, CMS, data layer, web activity, and ad server allowed granularity and full journey of each customer to be tracked
- Custom data structures enabled linkages between the user conversion and all prior articles read over multiple days, including voluntary conversions not directly through the paywall
- Author, article, and topics were linked to the conversion path and final conversion action
- Audience profiling cross-referenced each stage of the customer journey to understand what content resonated with casual readers to the most highly engaged subscribers
- Linkages established to offline data such as subscription type (digital-only, print hybrid), subscription tenure, price, helped understand what retained different subscribers

Once enough data was collected, Mather collaborated closely with DMN to customize a reporting dashboard. This allowed accessible insights for the newsroom to discover their own value and adapt to the new business model.

CONTENT MODULE DASHBOARD – Summary Breakdown



CONTENT MODULE DASHBOARD – Drill Down

LEVEL OF DETAIL	URL	RANK	OUT OF	Page Views	Conversi...	Path to Conversion	Scroll Depth	Time Per Page	Ad Revenue
NEWS : Crime	http://www.dallasnews.com/crime/2017/09/12/plano-police-release-names-victims-mass-shooting-party	1	95,435	209,947	20	132	47%	00:05:35	\$1,479.68
NEWS : Highland-Park	http://www.dallasnews.com/news/highland-park/2017/02/25/best-selling-author-calls-highland-park-students-trollinghim-assembly	2	95,435	117,415	15	105	52%	00:03:06	\$574.90
OPINION : Commentary	http://www.dallasnews.com/opinion/commentary/2017/02/16/first-casualties-trumps-trade-wars-texas-cattle-ranchers	3	95,435	397,412	14	94	44%	00:03:33	\$1,619.72
NEWS : Baylor	http://www.dallasnews.com/news/baylor/2017/02/02/lex-baylor-coach-art-briles-officials-tried-hide-misconduct-football-players-court-record-shows	4	95,435	90,231	13	74	42%	00:03:57	\$291.20
OPINION : Commentary	https://www.dallasnews.com/opinion/commentary/2017/11/16/gordon-keith-made-peace-grief	5	95,435	42,285	13	121	41%	00:06:01	\$451.12

In addition to the raw data, scoring algorithms were built to assess the performance of each article, author, or topic across four dimensions:



*“Without data and insights from Mather Economics, you are missing a huge piece of the puzzle for modern journalism, which may handicap your chances for success.*”

Mather’s team of expert consultants worked with the Dallas Morning News to provide guidance and recommendations which helped the organization reach its goals.

## Analyzing the Data

There were several key takeaways identified in the data:

**9%**  
ARTICLE  
ATTRIBUTION

Of the 54,000 articles analyzed throughout a 12-month period, only 9% were found to have a directly attributable conversion. Realizing that 91% of articles published did not have a direct conversion allowed the broaching of difficult conversations and decisions. Besides adjusting the production schedule, understanding more about the 5K articles that were responsible for all consumer revenue for 12-month period was a critical next step.

**18%**  
AUTHOR  
ATTRIBUTION

18% of all the writers (full-time and freelancers) were responsible for half of all conversions over the 12-month analysis period. This result was an equalizer for the newsroom. Age, personality, or other historical dynamics were no longer important. The new business model was equitable in that those who sell subscriptions are successful.

Of all the content produced by the Dallas Morning News, some common trends and traits were found. Not surprisingly, local journalism and content not found elsewhere were the primary drivers of subscriber value:

### What gets conversions?



#### Topics

- Crime/breaking
- Real estate
- Consumer/retail
- Cowboys, Rangers
- Colleges, HS

#### Article types

- Forward-looking
- Analysis
- Strong opinions 🗣️
- Service journalism



## Niche content: SMU football

Coverage of SMU ranked  
No. 7 in pageviews, but  
No. 1 in conversions

In addition to these topics, several niche content areas were also found. Though Southern Methodist University sports coverage was not a top driver of page views, the newsroom identified a small but highly engaged audience reading SMU content (and more importantly, paying for it!).

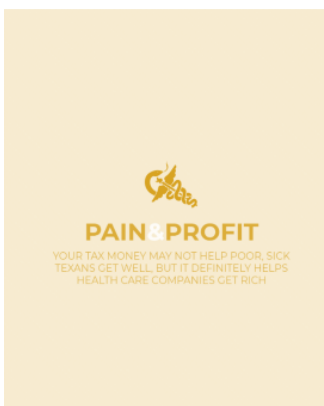
The newsroom also discovered no other major news outlets were covering SMU sports, further reinforcing the value proposition to their readers.

Another content vertical, perhaps unique to Texas, was the significant engagement and subscriptions generated by high school sports. The Dallas Morning News has since implemented a separate aggressive paywall on high school sports pages and created a separate digital-only product with exclusive access to HSS content.

This product outsells the all-access digital-only product in certain months of the year.

## Niche content: High schools

Exclusivity and passion  
is more valuable than  
mass appeal



## Niche content: Pain & Profit

In-depth investigative  
reporting series yielded  
more than 100 conversions

Sports verticals were not the only unique finding for the newsroom. Journalists were pleased to find that long-form investigative stories succeed when directly addressing target audiences. An ongoing investigation by DMN into how tax dollars were used in the state healthcare market generated a significant windfall of subscriptions.

In 2018, similar in-depth content, such as the voter-guide, was a highly successful driver of subscription revenue.

With limited resources and a need to evolve to the new subscription business model, The Dallas Morning News was able to find many insights that were critical to inform the newsroom about how to reach their audiences.

Besides finding the stories that worked, other conclusions were reached that challenged traditional notions of the role of the newsroom:

- Stories that are written as “filler” due to legacy media inertia must be altered or reassessed
- Stories that provide hope or look to the future outperform those that look to the past
- Narrative-based stories may not be as relevant for a metro newspaper except for certain cases
- Length, story format, headline, and timeliness are important to consider beyond the story itself
- “Big J” journalism stories should not disappear
- Outliers should not skew the conclusions – focus on the trends that lead to subscription

## What does not get conversions?



**News:** International news; National news

**Sports:** WNBA; MLS; national; outdoors

**Arts & Life:** Most except local restaurants

**Opinion:** National opinion; weak takes; columnists

**Features:** Slice of life and profiles

**Multimedia:** Standalone galleries, video

**Business:** Energy; environment; entrepreneurs

Analyzing the stories that did not do well is just as important as finding the stories that performed well. Certain content that is available elsewhere or not as relevant for the local market may be reduced in the future to focus resources on the stories that will sustain the organization.

*“We cannot compare ourselves to the New York Times or Washington Post, but should compare ourselves to other metro dailies”*

Breaking news, crime, and real estate coverage may not always be viewed with the highest journalistic value in traditional newsrooms, however, this content shows the strongest conversion metrics. High school sports are not often considered “Big J” journalism either, though DMN measured high school sports as one of the most efficient ways to convert subscribers.

## Lessons Learned

In addition to the content itself, other lessons were learned along the way:

- Everyone must come together to analyze data several times a year.
  - It is important to take time out of the day to learn about what works.
  - Training sessions are an ongoing activity in multiple formats, not a one-time meeting
- Decision-makers must be patient and gather enough data before making conclusions
- Seasonality, meter changes, and prices changes should also be considered
  - The ecosystem is important when comparing content. Always consider a *relative score/value* rather than an *absolute* value when measuring changes over time
- Outliers should be thrown out of the analysis
- Don't forget to look at low performing stories. Newsrooms tend to focus on the top performers and ignore the insights to be gained from the stories that did not work

*“The insights are critical but sometimes shocking. During the “print era”, journalists often had a blissful ignorance as there was no way to correlate content and subscriptions. For the first time, everyone could see what made people subscribe”*

## Results

There were several changes that the Dallas Morning News implemented with the help of data and analytics from Mather Economics:

- Niches of content were identified that were highly successful for conversions even if they were not a significant driver of page views
  - SMU, HSS, restaurants, and Curious Texas were identified as opportunities
- DMN invested in its own success by hiring additional reporters to cover breaking news
- Internal coaching developed “smart aggregators”
  - Reporters will take a story published by another publication and retell the story in context relevant to the local audience. This is especially valuable from a resource investment perspective
    - *For example*, a story by the New York Times ranking the top 25 places to live will focus on Dallas with additional commentary and perspective by local journalists
- Internally, staffing was reassigned based on the content identified on the path to conversion

The changes outlined, though incremental, **have been revolutionary in the DMN newsroom**. In general, the newsroom has also evolved their approach to producing content. Hard investigations, election coverage, and focusing on building habit from readers are being emphasized daily while there is much less emphasis on Facebook, flyby traffic, viral stories, and narrative storytelling.

The career path of the journalists changed too. Traditionally, if a reporter performed well in one beat, they would be “promoted” to another coverage area. In the new business model, this method of staff rotation would lessen the effectiveness of each reporter to be successful and provide the greatest value to the organization.

Another revolutionary change is the implementation of a **new compensation structure** for some freelance writers. Each writer is paid based on the number of subscribers they directly convert (among other goals) which further aligns the reporting to the key performance indicator. Though still in early phases, DMN is learning to better manage and operate this new compensation structure over the course of the year.

Overall, the connection between reporters and audiences has grown stronger and will continue to evolve over the coming years. The cultural changes have been a significant source of the evolution.

## Looking to the Future

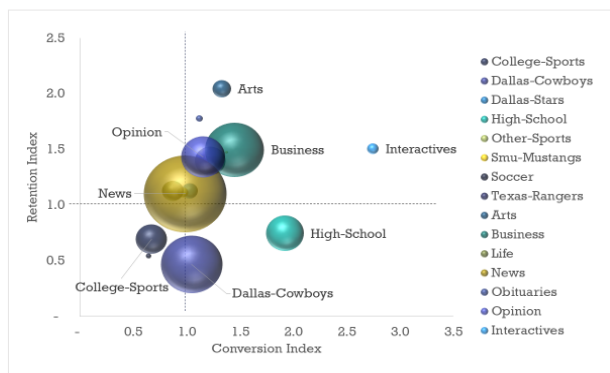
Mark Francescutti, now the director of marketing operations and engagement, still has his pulse on the newsroom. There is much to be proud of, but still many more ways to improve. His next project is to apply his unique perspective to marketing and acquisition efforts. Investments in user-experience, better technology to engage, acquire, and retain subscribers have set the stage for continued growth. The Dallas Morning News will continue collaborating with Mather Economics to build on the momentum started in the newsroom and support their efforts. Mather Economics has implemented propensity modelling to predict which users are likely to subscribe and will lead the implementation of the Intelligent Paywall<sup>TM</sup> in Q2 of 2019.

Still looking to the newsroom, DMN will embark on identifying content that is currently underserving the local audience. Community coverage is also an area of focus, especially in neighboring areas without a local daily newspaper. Other niches are also being explored, such as weather content. Geographic, cultural, and demographic niches are also potential areas of investment.

The journey has been impressive. Historically, the newsroom focused exclusively on content that was best for the print product. This evolved to chasing page views and the promise of digital ad revenue. Now, the focus is on engagement, loyalty, habit, and subscriptions. Retention is an emerging area of focus as well as DMN hopes to find content that retains their hard-earned subscribers.

Mather Economics is developing new algorithms and features in its dashboards for quicker takeaways and insights from ongoing feedback from DMN.

## CONTEXT INDEXING



As newsrooms become more data-driven and savvy in analytics, the appetite for predictive analytics will also grow. Lifetime value scoring per article may be the future of the Content Module paired with the Listener<sup>TM</sup> data platform.

Mather Economics is honored for the long-term partnership with the Dallas Morning News and focused on supporting its transformation to a modern newsroom.